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Impulsivity : the relationship between discipline referrals and sexual harassment

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IMPULSIVITY: THE RELATIONSHIP BETWEEN DISCIPLINE REFERRALS AND SEXUAL HARASSMENT

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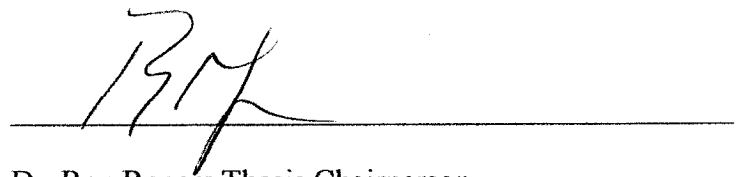

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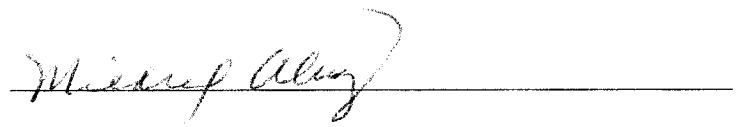

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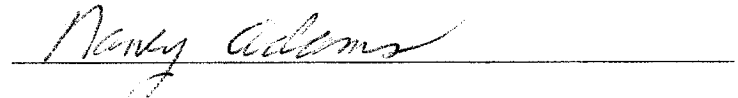

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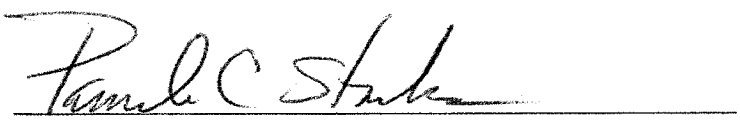

ABSTRACT

IMPULSIVITY: THE RELATIONSHIP BETWEEN DISCIPLINE REFERRALS AND SEXUAL HARASSMENT

By Janet D. Pittman

The present study examined levels of impulsiveness in students and how this trait related to the types of discipline referrals a student received. Participants were 7th and 8th grade students attending Davis Middle School. Impulsivity levels were determined by a student-friendly self-survey. Participants were recruited using self-survey, teacher observations, and health records. Of the 209 students surveyed, 60 high impulse students were randomly assigned to a control or treatment group. Thirty low impulse students were randomly selected for a comparison group. Findings showed a positive correlation between the number of discipline referrals a student received and their level of impulsivity. There was also a relationship between diagnosed Attention Deficit Hyperactivity Disorder and sexual harassment referrals. However, a rewards program designed to reduce the amount of discipline referrals received by the highly impulsive students showed mixed results. The current study adds to the body of knowledge on student impulsivity.

ACKNOWLEDGEMENTS

This thesis would not have been possible without the support, encouragement, and guidance of many people. First, I would like to acknowledge and thank Dr. Ron Rogers whose humor, patience, flexibility, and creativeness has been an inspiration. Deepest gratitude goes out to Dr. Mildred Alvarez whose expertise in adolescent psychology inspired many thoughts and ideas involving this study. To Nancy Adams whose intelligence and wisdom in working with this population was the start of the "Kinetic Kid" program. To the staff and students of Caroline Davis Middle School whose support and willingness to participate in the study allowed the idea to become a reality. I feel deeply blessed to work with such a wonderful group of people. Finally, my deepest thanks, appreciation, and gratitude go to my mother whose selfless support, constant encouragement, enthusiasm for learning, and love has inspired me to achieve this goal. She shared my highs and lows and will forever be with me in spirit.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

INTRODUCTION

Adults working with children in a structured setting (i.e., school) know that impulsive children are usually the most challenging to teach. Although there is no widely adopted or exact definition of "impulsivity" several behaviors or inferred processes are commonly used to define this term and therefore describe children. These include the tendency to act too quickly or unreflectively, difficulties in inhibiting actions once they commenced, and the tendency to seek out immediate gratification (Zaparniuk & Taylor, 1997). Children with impulsive tendencies often receive negative attention and consequences for their inability to control their own behavior. For example, behaviors such as grabbing for a toy, not waiting ones turn, or being unable to follow directions are characteristics of impulsive students. These behaviors usually earn the child a stern look or a negative consequence by the supervising adult. As a child ages and moves into middle school, impulsivity can lead to harsher consequences due to the different interpretations adults attach to impulsivity. Impulsive children's inability to keep their hands to themselves can be interpreted as bullying that could escalate into fighting. A child's inability to wait for his or her turn can elicit peer rejection. However, the most worrisome behavior to adults is the inability to follow directions which appears to be defiance.

When a child enters school and begins his or her formal education, the behavioral issues around impulsivity can and often do surface. In school, there are rules of conduct, procedures for group behavior, and standards of how to function in an academic environment. Children must interact in a group setting away from their families, and

must take directions from a new adult in charge at each grade level. These transitions present new behavioral challenges. It seems the greatest of these challenges are during those transition years from childhood to adolescence, or in school year terms, the movement from elementary to middle school. During the middle school years peer influences are the strongest and sexual identities begin to form (Arnett, 2004). A second biological transition is puberty. For most children, puberty also begins around the middle school years. Puberty, with its hormonal and biological changes, is often challenging for the normal preadolescent let alone for a preadolescent struggling with an impulse control issue. For instance, Maughan, Rowe, Messer, Goodman, and Meltzer (2004) documented that behavior disorder risk rates pique around the middle school years, supporting the importance of this transition time.

Many researchers (including the researcher of the present study) have been concerned with childhood behavior disorders and their progression into adolescence and adulthood. The concern is whether or not an intervention can change or improve the negative outcome of behavior disordered children and when is the best time to attempt implementation. The connection between childhood behavior problems and adult behavior problems has been documented. For example, the risk of becoming an adult offender has been associated by some researchers with the behavior problems of childhood conduct disorders (Satterfield & Schell, 1997). A conduct disorder is a persistent behavior pattern that involves violating the basic rights of others and ignoring age-appropriate social standards. Conduct disorders often coexists with ADHD (Disney, Elkins, McGue and Iacono, 1999; American Psychiatric Association, 1994). Other

researchers and numerous studies have addressed impulsivity and the condition's transgression towards severe behavior problems, including disruptive behavior disorders and Attention Deficit Hyperactive Disorder (ADHD). This research has noted the trait of impulsiveness within the condition of ADHD, ADHD's relationship to other comorbid conditions, as well as ADHD's epidemiology, and possible risk factors (Bokhoven, Matthys, Van Goozen, & Van Engeland, 2005; d'Acremont & Van der Linden, 2004; Hinshaw, Zupan, Simmel, Nigg, & Melnick, 1997; Maughan et al., 2004; Satterfield & Schell, 1997). However, other researchers are interested in the specific relationship between ADHD and conduct disorders and only address impulsivity as being a characteristic of the ADHD (Fergusson, Lynskey, & Horwood, 1997). Although the need for intervention is evident, current research focuses primarily on the analysis of data that affects evaluation and treatment rather than intervention. Few studies involved an active intervention with a preadolescent impulsive population before their behavior escalates to a disruptive behavior disorder. There is a distinct need to address the risk of severe behavior disorders surrounding the impulsive preadolescent population during these crucial transition times (the transition from elementary to the middle school and the biological transition into puberty).

If middle school teachers and psychologists could target impulsive students when they first enter middle school with specifically designed support programs, later behavior problems may be reduced or avoided altogether. Experts in the field agree that early intervention is the key to success for the impulsive student especially if the condition has warranted a label of ADHD (Children and Adults with Attention Deficit Hyperactivity

Disorder, 2004; Webster & Jackson, 1997). The current study addresses the idea that if impulsive students are identified and supported with a positive reinforcement program, their behavior will not be as problematic.

REVIEW OF THE LITERATURE

Impulsivity

Impulsivity holds a central place in numerous theories of child development and psychopathology (Zaparniuk & Taylor, 1997). The American Psychological Association describes impulsivity as little or no forethought, reflection, or consideration of the consequences of one's behavior, which may involve taking risks (VandenBos, 2007). Barkley (1991) states that impulsivity, or impaired impulse control, is the inability to stop and think before acting. Experts connect impulsivity with a range of disorders. For example, impulsivity is trait within ADHD (Barkley, 1991) and is a trait often associated with antisocial and/or deviant behaviors (Wiebe, 2005). Research suggests that sex offences committed by adolescents are part of a pattern of poor impulse control (Kavoussi, Kaplan & Becker, 1988). Fago (2003) published data suggesting that ADHD along with the condition's impulsive component is more prevalent in juvenile sexual offender populations when compared to the general population, as well as to other clinical populations. Impulsive control problems are found in disorders such as conduct disorders, antisocial personality disorders, and borderline personality disorders (Zaparniuk & Taylor, 1997). White et al. (1994) found in a longitudinal study that behavioral impulsivity was related to serious delinquency that remained stable over time. Additionally, impulsivity is noted to co-occur with numerous other problem behavior conditions. For example, long-term studies of children with impulse control problems or ADHD have found the following coexisting conditions: higher rates of conduct disorders, oppositional defiant disorders, antisocial behaviors, juvenile delinquency, and adult

criminality (Arnett, 2004; Lahey et al., 2000; Maughan et al., 2004; Satterfield & Schell, 1997; White et al., 1994).

While impulsivity can be associated with positive risk-taking, (for example risks taken while playing sports) it is typically central to adolescent psychopathology (d'Acremont & Van der Linden, 2004). In fact, recent research makes a distinction between "functional" and "dysfunctional" impulsive subtypes, noting that the most common usages of the term "impulsivity" refer to the dysfunctional subtype (Coscrina, 1997). Therefore, impulsivity has been investigated as a predictor of severe behavior problems. Researchers reported that boys with disruptive behavior disorders (DBD), which often contains an impulsive component, and hyperactivity show more violent offending tendencies as adults (Bokhoven et al., 2005). Among teenagers impulsivity is associated with several problematic behaviors that arise during this period (e.g., sensation seeking, lack of perseverance, or lack of premeditation) which are central to several psychopathological states such as conduct disorders (d'Acremont & Van der Linden, 2004).

Within an academic setting, students with impulse control problems often receive negative adult attention (in the form of redirection, negative consequences, and referrals) for their negative behaviors (e.g., blurting out, touching others inappropriately, hitting, or not following directions). Additionally, as noted above, behavior problems related to impulsivity are numerous, varied, and can be complicated even further by the existence and severity of coexisting conditions. Together, these aspects of impulsivity often result in a negative school experience for these students as well as their peers.

Impulsivity and ADHD

Impulsiveness is a key feature of Attention Deficit Hyperactive Disorder (Zaparniuk & Taylor, 1997). Lahey et al.'s (2000) study defines ADHD as developmentally inappropriate levels of attention problems, motor hyperactivity, and impulsive behavior. Barkley (1990) describes children with ADHD as having chronic difficulties in the areas of inattention and over-activity, calling these areas the "holy trinity" of the disorder. Studies of psychosocial dysfunction among the ADHD population have found significant impairment among ADHD students leading to problems in school behavior, peer relationships, sibling relationships, and parent relationships when compared to normal control children (Biederman et al., 1994; Hinshaw, et al., 1997). In an analysis of prospective studies that associated ADHD with substance use disorders, Disney et al., (1999) noted that 30% to 50% of the conduct disorder cases had the comorbid condition of ADHD. This finding again emphasizes the risk for ADHD students of developing higher levels of social problems especially when a comorbid condition exists.

When looking at the causes of ADHD, research supports that the condition is a brain-based disorder which occurs as the result of deficits in the executive functioning (Children and Adults with Attention Deficit Hyperactivity Disorder, 2004). Research also supports that problems with impulsive behaviors are a result of a problem within the brain's executive functioning (Barkley, 1990), leading one to think that impulsivity and ADHD could have similar epidemiology. Others refer to a wide variety of biological correlates (cognitive deficits to serotonin deficiencies) of impulsivity (Webster &

Jackson, 1997). Teeter (1998) cites ADHD with its component of impulsivity as the most commonly diagnosed neurobehavioral disorder of childhood. The condition affects 3% to 5% of the school-aged population with a lower prevalence in girls than boys (Disney et. al., 1999; American Psychiatric Association, 1994). However, authorities vary in their estimates of the percentage of ADHD in the general population. For example, Brown et al., (2001) cited the prevalence range to be between 4% and 12% while a study of 8,548 children conducted by the Mayo Clinic (2002) found that 7.5 % of its study sample had the disorder. With the statistical variations citing ADHD's prevalence within the general population, one could question whether or not many sufferers of the disorder go undiagnosed and therefore untreated.

Additionally, research over the past decade on impulsivity and ADHD has found that ADHD is often not the lone disorder existing in a child. Two thirds of children diagnosed with ADHD are found to have at least one other coexisting condition. For example, ADHD and a disruptive behavior disorder (Biederman et al., 1992; Children and Adults with Attention Deficit Hyperactivity Disorder, 2004). Disruptive behavior disorders have been shown to be common in childhood with a prevalence of 19% in children aged 6-19 years (Looper & McGill, 1999) and include conduct disorders and oppositional defiant disorders. Under the multi-pathway conception of ADHD, the symptom domains of hyperactivity, impulsivity, and inattentiveness cluster together to form the syndrome, these pathways also typically overlap onto other various disruptive behavior disorders (Martel & Nigg, 2006). Therefore, reflected within the ADHD population are higher rates of disruptive behavior disorders, antisocial behaviors, juvenile

delinquency, juvenile sex offenders, adult criminality, and instances of the sexual disorder paraphilia described in the following section (Fago, 2003, Kafka & Henneh, 2002; Satterfield & Schell, 1997). However, Kessler et al., (2006), stated that successful treatment of childhood ADHD reduces childhood symptoms of comorbid disorders. This finding again reinforces the importance of early involvement by professionals for focusing a child's impulsive energies on strategies for successful school experiences.

ADHD and Paraphilia

Although research has not looked at paraphilia and impulsivity per se, research has looked at paraphilia as a comorbid condition within ADHD. Therefore, studies investigating sexual disorders and ADHD are considered relevant because impulsivity is a component of ADHD. The American Psychological Association *Dictionary of Psychology* (VandenBos, 2007) describes Paraphilia as a sexual disorder in which unusual or bizarre fantasies or behaviors are necessary for sexual excitement. Some forms include sexual preferences for animals, sexual activity involving suffering or humiliation, or sexual activity with non-consenting partners. Other searchers define paraphilia as repetitive, socially deviant expressions of intensified sexual arousal, and associated behaviors (Kafka and Hennen, 2002). The most common forms of paraphilia tend to be exhibitionism, voyeurism, pedophilia, sexual masochism and sadism, fetishism, transvestic fetishism, frotteurism, and telephone scatologia (Kafka and Hennen, 2002). Sexual perpetrators indicate that the onset of their deviant sexual arousal occurred before the age of 18. Additionally, when looking at sexual crimes, research has found 30% of rapes and 56% of molestations are committed by perpetrators under 18

(Kavoussi, R. J., Kaplan, M., & Becker, J. V., 1988). In a study by Kavoussi, Kaplan, and Becker (1988), 34.5% of adolescents referred for a sexual crime also displayed some evidence of ADHD. Kafka and Hennen (2002) also found a statistically significant association between ADHD and paraphilia. The prevalence of diagnosed ADHD in that study's paraphilia population was 35.8%, a percentage far greater then the normal population. Other research addresses the complex relationships of neurochemical substrates and impulsivity, with particular focus on serotonin to explain the condition. Functional impairments of the brain's normal serotonin mechanisms are associated with impulse-related disorders some of which include paraphilia (Coscina, 1997). Although a discussion of neurochemical biology is beyond the scope of the current study, the beginning of a biological connection may be indicated in all three conditions; impulsivity, ADHD, and paraphilia. It appears that all three conditions have comparable brain based biological anomalies. As such impulsivity, ADHD, and paraphilia seem to have both behavioral and biological interrelationships. However, research has of yet made a connection between the three.

Recent work in behavioral economics has associated sexually deviant behavior with impulsivity and loss of control (Ward, Laws & Hudsons, 2003). The goal of the authors was to put deviant sexual behavior within an economic context. The authors state that sexual deviants exhibit two major behaviors studied in behavioral economics (a) they spend large amounts of time, money, and effort to obtain access to their preferred sexual reinforcers, and (b) they exhibit impulsivity and loss of control. In behavioral economics, sexually deviant behaviors are any sexual behaviors that are developmentally

inappropriate compared to same age peers, or those that are outside of societal norms (Ward, Laws, & Hudsons, 2003). The involvement of impulsive disorders such as ADHD in behavior disorders that are sexually deviant indicates that impulsivity or the more established condition of ADHD could have negative effects on the development of positive sexuality in males. For example, behavioral choices acted out impulsively of a sexual nature (touching oneself or a peer inappropriately in an inappropriate place) have severe consequences (referral for sexual harassment). Negative effects potentially exacerbated by ADHD include increased deviant sexual behavior, thrill seeking, impaired psychosocial development, and impaired impulse control. Consequently, interventions that address impulsivity and/or ADHD may show positive effects on sexually deviant behaviors. The key developmental period for addressing both issues is puberty.

Early Intervention

According to Lahey, McBurnett, and Loeber (2000) serious behavior disorders, most of which contain an impulsive component, are preventable to some extent if the factors of the behavior disorders prove to be modifiable. Other researchers have stated that early identification and intervention are important in order to decrease incidences or improve outcomes of disruptive behavior disordered student (Looper & McGill, 1999). Unfortunately, academic underachievement, special class placement, impaired neuropsychological performance, and psychiatric comorbidity are typical of these populations (Faraone, Biederman, Lehman, Spencer, Norman, Seidman, et. al., 1993).

With the consistent association between disruptive behavior disorders, impulsivity, ADHD, and other psychosocial disorders, it comes as no surprise that

impulsive children are more likely to be suspended or expelled from school, to be retained a grade, to drop out of school, to have trouble socially and emotionally, and to experience rejection, ridicule, and punishment (Fergusson, Lynskey, & Horwood, 1997; Rief, 1997). Studies have established that childhood antisocial behavior becomes more severe and stable with age (Lahey et al., 2000; Maughan et al., 2004). Therefore, adolescents with impulsive behaviors or impulsive disorders such as ADHD face special challenges and risks during these teen years (Children and Adults with Attention Deficit Hyperactivity Disorder, 2004). For example, a range of choices present themselves to the adolescent including academic and organizational demands of school, establishing independence, dealing with peer pressure, discovering identity, exposure to illegal drugs, and emerging sexuality. Each of these choices, present the opportunity for displaying appropriate or inappropriate behavior. Consequently, the time near or around puberty is one of particular risk for behavior disorders, especially in girls (Maughan et al., 2004). Maughan and colleagues found gender differences exist within the behavior-disordered population (represented mostly by males). However, gender differences narrow temporarily in the mid-teens. Therefore, while girls are typically underrepresented in the population suffering from behavior disorders and ADHD, this is untrue for girls in their mid-teens.

Research by Fergusson, Lynskey, and Horwood (1996) concluded that children who show antisocial behavior in early childhood tend to continue through adolescence. Accordingly, Satterfield and Schell (1997) urged in their first prospective study of juvenile and adult criminality in hyperactive boys that children with hyperactivity

disorders should be identified and treated for behavior problems early when behavior is more malleable to avoid serious adult antisocial behavior.

Experts have stated that children who are aggressive and unpopular are at risk for behavioral problems and juvenile delinquency (Webster & Jackson, 1997). Researchers in one study focused on the difficulties in forming positive peer relationships children with behavioral disorders have (Hinshaw, et al., 1997). In this study, factor analyses suggested that peer competence played an influential role in both positive and negative behavior in adolescence. The researchers looked at the parenting style and social competence issues surrounding peer relationship difficulties for children with ADHD (Hinshaw, et al., 1997). They noted that peer rejection during elementary school powerfully predicted later negative outcomes in social competence, academic performance, and behavior supporting the need for early intervention at pivotal times.

The purpose of this study was to identify children within a middle school population of 7th and 8th graders who had a history of impulse control issues and to determine if their participation in a school-based intervention program affects the number of discipline referrals they receive. Discipline referrals are statements of a student's problem behavior written by teachers and given to an administrator (e.g., vice-principal) for a consequence (e.g., detention, Saturday school, or suspension). The study examined how students' behavioral issues relate to the number of discipline referrals and tracked the types of discipline referrals they received. The study attempted to determine if children with high degrees of impulsivity received a larger proportion of referrals when compared to their same-age peers. A second question was to explore whether children

with high degrees of impulsivity manifesting in an ADHD diagnosis received a larger proportion of referrals coded as sexual harassment, when compared to the general student population. A third and final question concerned whether a behaviorally based program, supported through positive reinforcement activities, would reduce the chances of an impulsive student receiving a discipline referral.

Three hypotheses are identified. First, is that impulsivity will be positively related to the number of school discipline referrals a student receives. Second, is that students diagnosed with ADHD will receive more sexual harassment referrals than their peers who do not have ADHD. The third, and final hypothesis, is participation in a behavior based intervention program focused on positive adult support, positive peer play, positive reinforcement, and goal setting will reduce the number of discipline referrals received by students who score high on an impulsivity measure.

As part of this study, a school-based intervention program was designed to provide adult supervision within a small group environment and structured free-time activities in which interpersonal skills could naturally develop. The intended outcomes of the study's school-based intervention program were to: (a) reduce out-of-class time among impulsive students as a consequence of discipline referrals (thus increasing learning opportunities by remaining in class) and (b) enhance impulsive students' opportunities to experience a positive school climate rather than a negative (disciplinarian) climate. The study's success would validate the used of resources for a proactive behavioral program. Before this study's intervention program was introduced, the schools programs involving the impulsive population were reactive and punitive.

Positive programs could reduce the impulsive student's chances of experiencing a variety of negative outcomes such as developing more severely disruptive behavior disorders, involvement in the juvenile justice system, and address the precursors of sexually deviant behavior (e.g., paraphilia).

It is important to note that a unique feature of this study is the use of observational and situational data (referrals) to account for teacher perceptions of impulsive students; as well as student self-ratings of their own perceived impulsivity. No other study was found to use a self-rated scale with a middle school student population. A screening system of this type can pull students into a treatment program before they are classified as "troubled" with impulsivity; as opposed to the reverse situation where students receive negative attention and consequences (e.g., referrals and suspensions) for their behavior. Providing the impulsive students with a support program through screening by a self-survey, as well as teacher perceptions allows student support to occur as early as possible. Consequently, addressing what research supports as optimal, early intervention.

METHODS

Participants

The sample was one of convenience from a school to which the researcher had access. The school was in need of creative techniques in working with its impulsive population. Students were selected based on a self-survey, a review of school records, and teacher discussions. Students who scored high on the self-survey, showed signs of impulse control problems, or had an impulse control disorder (i.e. ADHD) were eligible for the study.

Participants were 7th and 8th graders attending Caroline Davis Middle School in south San Jose, California. The enrollment for the 2006-2007 school year was 895 students. The target sample size for this study's three groups (treatment, control, and comparison) was 30 students per group. The sample size was considered adequate based on past practices (Bokhoven, Matthys, Van Goozen, & Van Engeland, 2005) for both two-group or three-group analyses of variance (ANOVA) design. Cohen's (1992) power analysis indexes reveal the sample size was enough to detect a large difference between two means. The random assignment of students to either the treatment or the control group eliminated the possibility of systematic differences among the participants (Creswell, 2003). The ethnic composition of the school, as reported in the school's records, was 54% Hispanic, 15 % Vietnamese, 14% White, 7 % Black, 3 % Filipino, and other groups 7% of the student population. Females made up 45% of the student population and males 55%. The percentage of students in Special Education was 10%. Most of the student population were of lower socio-economic status (SES) as indicated

by the fact that 51% of the student body receives free or reduced lunch and lower parent educational levels as compared to the population overall. Twenty-seven percent of these students' parents never graduated from high school and 58% had no college education.

Participants received a parent permission letter, which described the purpose and design of the program. A signed permission letter was required from each parent before the child could take part in the treatment group (see Appendix A).

Of the 209 students surveyed through their language arts classes, 90 students (28 girls and 62 boys) were selected to participate in the current study. Ages ranged from 12 to 15 years old, with a mean age of 13.8 years (SD = 0.675). The surveyed students were grouped as having low (a score of 10 or below) or high (a score of 11 or above) impulsivity levels. The maximum an impulsive student could score on the survey was twenty-seven, a value chosen by the researcher. Because one question reflected non-impulsiveness (e.g., "I am quiet and shy"), the lowest impulsiveness score a student could receive was a three. Sixty students were determined to have low levels of impulsivity and from that group 30 were randomly selected to be the low impulsivity comparison group. Table 1 summarizes the breakdown of frequencies and percentages for the demographic items of the low impulsivity comparison group.

Table 1

Frequencies and Percents for Demographic Variables of the Low-impulsivity Comparison Group
(N = 30)

Variable	Frequency	Percent
Gender		
Male	13	43.0
Female	17	57.0
Ethnicity		
Hispanic	16	53.0
White	3	10.0
Black	1	3.0
Vietnamese	4	13.0
Other	6	20.0
Classification		
General Education	30	100

Note: All students' educational classification was general education.

Of the remaining one 149 students who completed the survey, a high impulsiveness group was selected using student health records, teachers' observations, and scores on the self-survey. Sixty-five students were determined by the researcher to have high impulsivity using the above stated criteria and became possible candidates for

Davis School's "Kinetic Kid" program, which was the name given to the intervention program that focused on positive reinforcement and was created for this study. From the original 65 high impulsivity students, three parents refused the permission letter and two moved leaving 60 students to be randomly assigned to either the treatment or control groups.

Of the 60 students participating in both the treatment or control groups, 504 Plans, which are plans for ADHD students who do not receive Special Education services, comprised 10%. Students with the label ADHD made up 20%, Special Education students made up 52%, and general education students identified by teachers as impulsive made up 38%. As expected, both treatment and control groups had a greater number of males than females due to the lower prevalence of impulsive disorders in girls (Disney et. al., 1999; American Psychiatric Association, 1994). Table 2 highlights the frequencies and percentages for the demographic items of the combined groups.

Table 2

Frequencies and Percents for Demographic Variables of the Treatment and Control Groups (N = 60)

Variable	Frequency	Percent
Gender		
Male	49	81.7
Female	11	18.3
Ethnicity		
Hispanic	35	58.3

White	13	21.7
Black	6	10.0
Vietnamese	3	5.0
Other	3	5.0
Classification		
Special Education	31	52.0
504 plan	6	10.0
General Education	23	38.0
ADHD	12	20.0

Note: The demographic and educational classifications represent the treatment and control groups. The percentages in the classification categories reflect an overlap of ADHD into Special Education and 504 plans.

Materials

The student self-survey developed by the researcher for the current study was the assessment used to determine impulsivity levels. The "Kinetic Kid" rewards program consisted of various rewards and was the title for the treatment program. It consisted of the following a) a "safe place" classroom with games, b) weekly affirmations on small chocolates with sayings attached such as "that's me referral free," c) McDonald lunches, d) "Movie Day," e) "Davis Dollar" reward money, f) once a week popcorn.

Measurement

To measure impulsivity several known instruments (Barkley 1991; Brown et al., 2000; McCarney, 1996) designed to measure impulsivity under an ADHD diagnostic or

evaluation criteria, were reviewed, adapted, and modified. Modification was accomplished by reducing the number of statements to focus solely on impulsivity and rewording the statements to a basic reading level. Reliability data was available for one measure of which 9 of the 10 reworded survey statements matched. Test-retest reliability was determined on that measure from 121 students randomly selected from those involved in the *Attention Deficit Disorders Evaluation Scale Secondary-Age Student Version's* normative population. Construct consistency scores ranged from .89 to .96, reflecting high test-retest reliability. Internal consistency reliability was determined using the coefficient alpha formula. The Impulsive subscale's alpha reliability was .98 which is well above the .70 level that is generally considered to be adequate (McCarney, 1996). Because the survey statements were matched with the above mentioned evaluation scale the survey is determined by the researcher to be of adequate reliability for the current study's purpose.

Next, "I" statements were formed from the American Psychiatric Association (1994) DSM IV manual's symptom criteria under the Attention Deficit Hyperactivity Disorder's impulsivity section. For example, a symptom criterion is "often blurts out answers before questions have been completed." The survey question related to that criterion would read, "I often blurt out answers when I know them," thus, creating a self-assessment that evaluated participants' level of perceived impulsive behavior. The survey was deemed by the researcher to have the wording and reading level appropriate for middle school students. A staff member explained the questions to any student who requested assistance. The survey was read to any student in the group who had a reading

The researcher believes the student survey to be a valid measure for impulsivity for several reasons. First, upon comparing the student survey to the other evaluation tools it was found that the techniques for item development were similar. The *Attention Deficit Disorders Evaluation Scale Secondary-Age Student Version* used the American Psychiatric Association (1994) DSM IV manual's symptom criteria, input from the school psychologists, and input from special education personnel to develop its evaluation items as did the researcher in developing the student survey items. Second, the *Attention Deficit Disorders Evaluation Scale Secondary-Age Student Version* showed high criterion-related validity with correlations to other known assessment exceeding statistically significant levels of acceptability (McCarney, 1996). Third, construct validity was determined for the *Attention Deficit Disorders Evaluation Scale Secondary-Age Student Version* of which the survey items where matched. The factor analysis on the Hyperactive-Impulsive subscale revealed that all items loaded above .30 indicating it was a single factor. The student survey was matched to this subscale but only with items considered to measure impulsivity. Therefore, the researcher feels that the self-survey shares similar construct validity with the *Attention Deficit Disorders Evaluation Scale Secondary-Age Student Version.* Overall, the researcher feels that the student survey's content validity is high based one how the survey was development, item analysis of other valid measures, and basing items on the American Psychiatric Association (1994) DSM IV manual's symptom criteria.

The survey consisted of ten questions with a four choice response reflecting impulsiveness (e.g., "I tend to fidget or be squirmy"). A response to each statement was

content validity is high based one how the survey was development, item analysis of other valid measures, and basing items on the American Psychiatric Association (1994) DSM IV manual's symptom criteria.

The survey consisted of ten questions with a four choice response reflecting impulsiveness (e.g., "I tend to fidget or be squirmy"). A response to each statement was assigned a value of 0, 1, 2 or 3. A score of 0 to10 would indicate a low-impulsive rating and a score of 11 to 30 would indicate a high impulsive rating. The survey's low and high impulsivity point distribution was determined from the American Psychiatric Association (1994) DSM IV manual's symptom criteria for Attention Deficit Hyperactivity Disorder using the behaviors under impulsivity. Three high scores (3 X 3 = 9) or five medium scores (2 X 5 = 10) were considered an adequate indicator of impulsiveness. Some items on the survey were reverse coded (i.e., item number 3, "I am quiet and shy.") to allow detection of response bias. Consequently, the survey is thought to accurately represent the perception of each student's awareness of his or her behavior within the academic setting (see Appendix B). The researcher scored all surveys and found no students marked the same answer consistently.

Design

To investigate the study's first hypotheses, a quantitative, between subjects, single factor, experimental, research design was used. An analysis of variance (ANOVA) was performed to determine the difference between high versus low impulsivity groups and referral rate, the dependent variable.

The level of a student's impulsivity was assessed by a self-survey designed by the researcher, specifically for the purpose of this study. Students scoring high on the impulsivity measure were randomly selected for participation in the treatment group or the control group. The survey allowed the researcher to assess differences in the mean scores of impulsivity between treatment and control groups. A low impulsivity group of students was randomly selected from the remaining pool of students to be the comparison group. For this analysis treatment and control groups were combined to form the high impulsivity group which was compared to the low impulsivity group.

To investigate the study's second hypotheses, a review of school records was conducted to find all "sexual harassment" coded referrals received by students. The percentage of ADHD students receiving this type of referral was compared to the general school population.

To investigate the study's third hypothesis a two-factor between-subjects, analysis of variance (ANOVA) was conducted. The analysis investigated the differences between the first independent variables, treatment types (students participating in the "Kinetic Kid" program and the control group not receiving the program) and the second independent variables time of measurement (pre-treatment vs. post-treatment). An analysis was conducted across all four conditions looking for differences in referral rates (the dependent variable).

Procedure

The experiment consisted of a 10-minute self-survey developed by the researcher that assesses a student's level of impulsiveness. Approximately 15 minutes of class time

was allocated to administer the measure. To ensure confidentiality, surveys were assigned a number that were matched to each student's name and these numbers were used to identify participants rather than their names. The researcher, through available school records and teacher interviews, gathered additional information regarding each possible participant's impulsivity issues. After a screen for high impulsive students, those students were randomly assigned to either the treatment or the control group to eliminate the possibility of systematic differences among the participants (Creswell, 2003). The process of randomization consisted of assigning students numbers, and those numbers pulled from a hat, one at a time, alternately placing a student in either the treatment group or control group.

A single-factor between subjects analysis of variance (ANOVA) was performed on the baseline data (survey scores) to determine if there was a difference in impulsivity levels between the treatment and the control groups. It was necessary for both groups to be of equal status as measured by the impulsivity surveys to determine whether there was a significant difference between the treatment and control group in referral reduction after the program's completion.

After a pool of possible participants was gathered, an information letter containing the parent permission from was sent home with the student participant to be signed. Students who returned the parent permission form were then eligible for participation in the study.

A comparison group of low impulse survey scores was gathered from the remaining student survey pool. This group was used as the comparison group with the

high impulse group in order to compare referral rates. Thirty students were randomly selected to form the comparison group.

Treatment was delivered in the form a "safe place" classroom containing student-centered activities. The safe place design consisted of an open classroom with an adult supervision. This room was available to students as an alternative to unstructured time in the open yard where there was a higher student staff ratio. The treatment program was designed by the researcher and delivered during the normal school day around the students' schedules. The central focus of the treatment was monitoring student behavior and encouraging positive social skills during the traditionally unstructured free time. Weekly affirmations (i.e., small chocolates with sayings attached such as "that's me referral free") were also part of the program's positive attention design. The open classroom was available at break and at lunch for both groups. Therefore, this feature itself was not a confounding factor for considering group differences. Instead, the difference was in the form of the feedback given to the students by the adult supervisor and the earned activities the treatment group receive (e.g., popcorn day, movie day and off campus lunch). The treatment group had an adult who directed individual goal setting, actively provided positive behavioral feedback, and encouraged positive social behaviors with the students while they participated in self-directed activities (e.g., computer games, card games, board games, and music) within the natural peer group setting. The control group's adult remained neutral.

The adult in the treatment program encouraged positive self-esteem by giving the students in the treatment program more responsibilities (e.g., helping staff run "Spirit

Days" which are student games during break or lunchtime) and tangible rewards in the form of points earned for positive behavior. The points could be "spent" on off-campus lunches with a staff member and peers, "movie day" (an extra 20 minutes of lunch-time, one day a week, watching a movie) and/or "Popcorn Thursdays" (where the treatment group received a small bag of popcorn if the were referral free that week). The treatment group had specific goals aimed at reducing their discipline referral rate or maintaining a zero referral status. The adult delivering the program for the treatment group was experienced in working with the special needs of the ADHD population. Both treatment and control groups had access to support programs already established on campus, such as the after school homework center, Breakfast Club, Math Munchers, "Davis Dollar Rewards," being elected to participate in the "Breakfast of Champions," being listed on the honor roll, and numerous teacher-specific reward programs.

Discipline referrals and suspension data were collected, logged, and coded on every student that attended the school. This information was retrieved for review through the school's computer system. Data was gathered on referral rates for the control and treatment groups for an eight-week period prior to the treatment program's start (pre-treatment). An analysis of discipline referrals and suspension data was completed for all three groups of students (control, treatment, and comparison) at the end of eight-week program (post-treatment).

RESULTS

An analysis of survey scores was conducted once students were randomly assigned to groups. The analysis showed that the treatment group had a mean survey score of 17.57 and the control group had a mean score of 19.33. This analysis revealed no statistically significant difference between the two group means, $F(1, 58) = 2.74$, $p > .05$ before the start of treatment. It should be noted that over the course of the study, one student from the treatment group moved, thus dropping the treatment group number to 29. However, this did not have an effect on the outcome of the analysis.

The study explored three areas related to impulsivity. One, whether or not a student's impulsivity level positively correlated to the number of discipline referrals that student received. Second, whether or not a relationship exists between diagnosed ADHD and sexual harassment referrals. Third, the effectiveness of a treatment program intended to reduce the number of referrals received by impulsive students. The students in the treatment group participated in the "Kinetic Kid" program.

To test the study's first research hypothesis a single-factor between groups analysis of variance (ANOVA) was conducted comparing means of students who scored high for impulsivity (treatment and control groups) and students who scored low for impulsivity (comparison group) to referral rates (see Table 3). The first hypothesis, that impulsivity has a positive relationship to the number of school referrals a student receives, was considered to be true if a statistically significant difference ($p < 0.05$) existed between the numbers of referrals received by the high impulsive group, compared to the number of referrals received by the low impulsive group.

The analysis found that students with high impulsivity scores on the self-survey ($\underline{M}$ = 3.19) had significantly more referrals than those who scored low in impulsivity on the self-survey ($\underline{M}$ = .50), F (1, 87) = 9.56, $p < .01$. The analysis supports that low impulsive students received a lower amount of referrals when compared to their high impulsivity, high referral counter part. Therefore H1 was supported. Impulsivity is significantly related to the number of discipline referrals a student received (see Table 4).

Table 3

Descriptive Statistics for Referral Rate between High and Low Impulsive Groups (n = 89)

Group	N	Mean	Standard Deviation	Standard Error
High	59	3.19	4.61	.60
Low	30	.50	1.57	.29
Total	89	2.28	4.06	.43

Table 4

ANOVA Summary Table for Group Referral Rate

Source	SS	df	MS	F
Group	143.53	1	143.53	9.56*
Error	1306.45	87	15.02	
Total	1449.98	88		

*p < .01

To test the study's second research hypothesis (that students diagnosed with ADHD would receive more sexual harassment referrals than their peers who do not have ADHD) a review of school records was conducted to find all "sexual harassment" coded referrals received by students. It was found that ADHD students received the majority of the sexual harassment referrals. In the review, six referrals were written for sexual harassment. Of these six referrals, four were committed by students who had a documented history of ADHD as stated their school records. Therefore, 70% of the referrals were committed by ADHD students which could support H2. However, with such a small number (4 out of 6) students committing sexual harassment more data needs to be gather in order to draw the conclusion.

The third hypothesis, that an intervention program would reduce discipline referrals of students who score high on the impulsivity measure, was considered true if a statistically significant difference ($p < 0.05$) in the number of discipline referrals received existed between the treatment and control groups, pre- vs. post-treatment.

Examination of the individual scores revealed extreme scores or outliers in the treatment and control groups. Outliers are participant whose data set is atypical, therefore unduly influencing the mean, which is sensitive to anomalies (Thompson, 2006). The scatterplot uses each student's referral data as a point on the graph. Both treatment and control groups' referral rates are represented in the graph. The outliers' data points are outside the cluster of scores. In general, most students clustered between 0 and 10 referrals (see Figure 1).

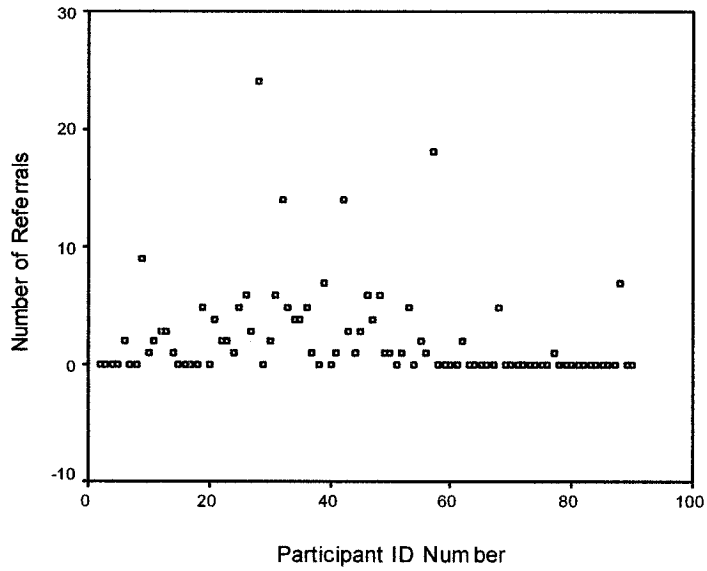

Figure 1. Scatter plot of referral rates for treatment and control groups

Using Chauvenet's criterion of two standard deviations from the mean as the cut off point for removing outliers from the data set, two scores from the treatment group and two scores from the control group were removed. This left the data set with a total of 55 participants (see Table 5).

Table 5

Descriptive Statistics for the Referral Rate of Treatment vs. Control Groups (n = 55)

Group	N	Mean	Standard Deviation	Standard Error
Treatment	28	1.82	2.28	.43
Control	27	2.48	2.34	.45
Total	55	2.15	2.31	.31

*p > .05

To test the study's third and final research hypothesis a two-factor between-subjects, analysis of variance (ANOVA) comparing the means of the first independent variables (treatment or no treatment) to the means of the second independent variables (pre-treatment vs. post-treatment) was conducted across all four conditions looking for differences in referral rates, the dependent variable (see Table 6).

Table 6

Descriptive Statistics for Treatment vs. Control Referrals Pre vs. Post Program (n = 55)

Source	SS	df	MS	F
Treatment vs. Control	1.31	1	1.31	.04
Pre vs. Post Referral	.04	1	.04	.001
Treatment * Referrals	1.03	1	1.03	.03
Error	945.98	27	35.04	
Total	951.36	111		

*p > .05

Although the ANOVA data set did not reveal statistically significant differences between the groups (p > .05), the mean rate of referrals was lower for the treatment group $\underline{M}$ = 1.82, than the control group $\underline{M}$ = 2.48. Figure 2 depicts the mean number of referrals for all three groups (treatment, control, and comparison).

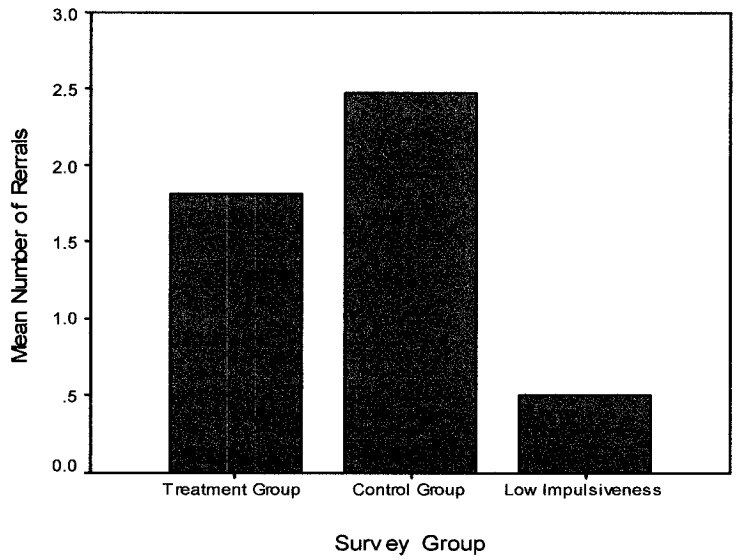

Figure 2. Mean number of referrals for high impulsivity treatment and control groups and low impulsivity comparison group (per individual).

A visual analysis of the above graph shows that the control group has the highest mean rate of referrals (M =2.48). The treatment group's mean rate (M = 1.82) is lower than the control's with the comparison group's mean referral rate (M = .50) significantly lower than the treatment and control groups' mean.

The overall analysis revealed a non-significant main effect for the referral rate of both treatment and control, $F(1, 27) = .04$, n.s. The second analysis found that there was no significant difference between the two groups on referral rates pre-treatment vs. post-treatment $F(1, 54) = .001$, n.s. Finally, the group * referral interaction was also non-significant, $F(1, 54) = .03$, n.s. These analyses refute H3.

As stated earlier, the sample size was adequate according to Cohen's (1992) power analysis indexes. However, the sample size was only enough to detect a large

difference between two overall group means for an alpha of 0.05. It was stated that $N =$ 26, was required in each group to detect the above stated difference.

DISCUSSION

As expected, the results of the study after the eight-week program revealed that impulsive students receive more referrals (75 referrals for the treatment group as compared to 113 referrals for the control group) than low impulse students (8 referrals). The findings support previous research that impulsive students are at a higher risk for behavior and academic problems. The low and high impulse groups also reflected the prevalent differences between girls and boys. Boys represented 83% of the high impulsivity group but only 43% of the low impulsivity group. Again, the findings in the study supports past research that there is a higher rate of impulsivity, ADHD, and behavior disorders in males.

These data suggest that impulsive students need more support than what is offered to the general population in order to succeed in an academic environment. However, anticipating the behavior issues with this population is only a beginning. A large and unstructured environment is overwhelming to the impulsive student. A smaller supervised situation with structured activities can provide behavioral support to a student who lacks certain types of control.

Unfortunately, impulsive students usually struggle to form positive relationships with teachers. Teacher attention is very powerful in the classroom setting. Positive attention and selective ignoring are typically effective tools when used with impulsive students (Barkley, 1990). Teacher perceptions often predict achievement especially in low achievers (Madon, Jussim, & Eccles, 1997). However, the middle school environment also presents issues relating to the importance and attraction to peers as an

influence on choices and behaviors. Impulsive students seek attention (whether it is positive or negative); thus risking teacher reprimand. This is often the trade-off in order to achieve peer recognition or notoriety. During the present study, the researcher observed that impulsive students naturally received negative attention from teachers and peers. However, these same impulsive students did seek out the positive attention and rewards when these were made available. It appears that these students gravitate towards individual attention and rewards when made available and will work within the guidelines set to gain those rewards or receive individual attention.

Results of the data analysis in regards to sexual harassment referrals revealed that all students were male and were receiving Special Education support services or referred by a teacher for having traits of impulsivity. Research supports that sexually deviant adolescents have a higher association of ADHD than the normal adolescent population. Kafka and Hennen (2002) found in their study of paraphilias, which included 60 sex offenders that the third most prevalent disorder ADHD, especially the combined subtype, was statistically significantly associated with paraphilias. The current study found that students who had a known history of ADHD committed 70% of the sexual harassment referrals. The percentage reflects a higher percentage of ADHD involved in sexual harassment referrals than exists in the general school population. It is likely that the ADHD students in this study are typical of most ADHD children and lack an appropriate repertoire of social skills to choose from when seeking attention or making behavioral decisions especially if behavior is of a sexual nature.

Appropriate peer interaction is important for making and maintaining friends especially during the middle school years. However, research has noted that forming positive peer relationships can be difficult for behavior-disordered children. As discussed in the review of the literature above, peer rejection can lead to poor social competence later in life (Hinshaw, et al., 1997). If forming friendships are difficult for some students, dating can be even more challenging. Arnett (2004) cites that for most adolescents "going with" a peer of the opposite sex begins around the middle school years (12 to 14 years old). This social situation can be especially challenging for the impulsive or behavior-troubled student. For example, a boy moving into puberty may show interest in gaining a female peer's attention. However, with the impulsive pubescent population their social skill base is often limited or may be non-existent. Therefore, to gain attention, the student may act impulsively in an inappropriate sexual manner.

An area of future research could target developing sexuality issues within the impulsive and ADHD student population at the middle school level, with the intent to develop greater social competencies and thus avoiding more severe sexual deviancy issues later in life. Unfortunately, dealing with adolescent sexuality is a sensitive area due to cultural beliefs and family values. To complicate the situation, the adolescent is often reluctant to share his or her romantic feelings with a parent. Therefore, he is left to his own limited choice of actions that are often underdeveloped or inappropriate. However, systematically modeling of interaction skills at the appropriate age level could reduce sexual harassment issues and referrals, which is a positive step that would likely have lasting benefits.

Future research could also address whether there or not there is a strong biological connection between three conditions; impulsivity, ADHD, and paraphilia. As stated earlier in the review of the literature it appears that all three conditions have comparable brain based biological anomalies. As such impulsivity, ADHD, and paraphilia seem to have both behavioral and biological interrelationships. However, research has of yet made a concrete connection between the three.

Although the treatment program showed non-significant results the researcher believes it made a difference in the majority of the students' referral rates. Both the control and the treatment group had similar referral rates pre-treatment. However post-treatment, the treatment group's referral rate improved and the control group's referral rate became slightly worse. Many students in the treatment group as well as other general education students with no impulse issues utilized the "safe place classroom" as an intimate place to interact. If interaction issues arose, they were dealt with immediately within the setting. Unlike the larger "yard" where inappropriate behaviors are easily overlooked by the supervising adult or are so severe that a referral is warranted immediately; the safe place setting had a variety of structured activities that directed a student's free-time in socially appropriate ways. Because many impulsive students do not know how to interact, they resort to "bugging" other students to occupy themselves, which in turn leads to peer rejection. The structured activities (e.g., computer games, card games, board games, and music) supported appropriate interactions, which in turn leads to peer acceptance.

It is possible that the eight-week treatment program was not long enough and started too late in the school year to show significant results. One solution would be to implement treatment program as soon as the impulsive students started middle school. This could utilize the change of environment to alter established patterns of school behaviors and capitalize on the "halo effect" which holds that students behave well for the first few weeks in a new school environment.

Finally, it is important to note that the study consisted of two unique features. First, it is the only known study to measure impulsivity using a student friendly self-survey. Although, the measure was specifically developed for the current study, future research may want to utilize the survey as a self-administered measurement technique. Secondly, linking referral related data to impulsivity and ADHD, as an early indicator of behavioral issues, encourages the process of early detection, and bypasses the need for clinical assessment. Therefore, students with impulsivity problems could informally gain access to early treatment using support programs.

Limitations

The limitations of the present study were that the study used a convenience sample (i.e., the sample was drawn from a school the researcher has access to) and the population was generally of a lower socioeconomic status. Therefore, the sample may not be representative of all impulsive or ADHD students in the 7th and 8th grades. However, since coming from a family with lower socioeconomic status is characteristic of the ADHD population (Satterfield & Schell, 1997); as such, the sample is believed to be appropriate for the study's purpose. Another limitation may be the use of a self-report

as the measure. The self-survey relies on a subject's honesty and awareness of his or her own behavior. It could be assumed that students with little awareness of their behavioral tendencies would generate a lower than expected score on the measure. However, when reviewing the self ratings and teachers' perceptions there were few incongruent matches. Additionally, referral-rate data could be inconsistent in relationship to behaviors due in part to teacher personality differences. For example, one teacher may find out-of-seat behavior a referable offense, where another would not which can be attributed to individual personality differences and teaching styles.

The final limitation was that the eight-week treatment program was not long enough for the results to show significance. Students in the treatment group did improve their behavior. However, this was not reflected in the data. The treatment was started too late in the school year to show significant results. A beginning of the school year treatment program implemented with the impulsive population may yield better results. Future studies should look to a full academic year program.

With the high risk of impulsive students moving into more severe behavior disorders, the justification and use of early intervention programs makes sense. Data suggest that resources directed towards the impulsive population for preventative programs should continue to be explored as they would be of benefit in the short term (to the students, their teachers, and their peers) and in the long term (in preventing the cultivation of future complicating issues). Early intervention and redirection could have the possible outcome of more impulsivity being associated with positive risk-taking as opposed to its association with psychopathology. Treatment programs could improve the

psychosocial functioning among the ADHD population therefore reducing problems in school behavior and improving relationships among peers, siblings, and parents. In the present study, there are some indications that factors (impulsivity) of behavior disorders are modifiable. Therefore, the possibility of preventing to some extent serious behavior disorders exists.

The researcher concludes that a program focused on early intervention and positive attention, as well as positive reinforcement of pro-social behavior does have an impact on the impulsive population whereby their behavior improves and their need for negative attention diminishes. However, programs of this type should start at a natural transition time (i.e., moving for elementary school to middle school) and consist of a full academic year.

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Appendix A

INFORMED CONSENT FORM

Kinetic Kids Project: Davis Middle School
Consent to participate

Dear Parent:

As a teacher at Davis Middle School, I believe in providing a child centered environment that is accepting and rewarding. In order to improve educational methods towards this goal, I am asking for your child to participate in a research project investigating the unique behavioral issues (i.e. the need for attention and peer recognition) of our students. The project will involve a self survey, student goal setting and adult support. The purpose of the project is to give educators insights regarding educational methods that are successful with adolescents.

Your child will be asked to complete a short 10 question survey regarding their behavior. After the survey your child will set behavioral goals (i.e. reduce the times he or she talks out of turn in class) and be rewarded for his or her efforts in obtaining these goals. There are no anticipated risks for your child and all students will be rewarded for their participation the program. Participation is voluntary and will require no extra time outside of the school day. If you or your child decides, at any time, that you do not want to be a part of the research, there will be no negative consequences.

Although the results of this study may be published, no information that could identify your child, your family or you will be included.

The research project is in partial fulfillment of a Master's thesis program requirement from San Jose State University Psychology Department and will take eight weeks to complete. All student information collected will be strictly confidential. If you have any complaints about this study, you may contact the Chair of the department of Psychology: Sheila Bienenfeld, Ph.D. (408-924-5642; sbienenf@email.sjsu.edu)

The Institutional Review Board (IRB) of San Jose State University has reviewed and approved this study. If you have any concerns about this study you may contact the Associate Vice President, Graduate Studies and Research: Pamela Stacks, Ph.D. (408-924-2480; pstacks@jupiter.sjsu.edu).

Attached is parent permission letter to be signed by you and your child in order for your child to participate. If you have any questions please feel free to contact me (408-227-0616 ex 277).

Sincerely,
Janet Pittman
Teacher and Researcher

Kinetic Kids Project: Davis Middle School
Consent to participate

Name of Parent or Guardian:_____
(Please print first and last name)

I give my consent for my child _____ to participate in a research project that will investigate adolescent behavior within the middle school environment. I understand that data will be collected to determine if a behavior program based on goal setting, and rewards can affect student behavior at Davis Middle School. The data to be collected will include a self survey and an analysis of discipline actions. My student's data will be identified by number only and analyzed in order to look for group differences. Individual data will not be identified by name. I understand that the data relating to this project will be kept secure and that only the researcher will have access to it. The researcher assures me that confidentiality will be protected and that my child can withdraw at anytime without penalty. I have been given the phone numbers of the researcher Janet Pittman (408-227-0616 ex 277), the principal Jeanette Crawford-McCuller (408-227-0616) and the Chair of the department of Psychology Sheila Bienenfeld, Ph.D. (408-924-5642); who I can contact if I have any questions about the research or the manner in which it is conducted. I have had the opportunity to ask questions and received the answers that I may have about this study. I have read the above information, and I agree to participate in the study. A copy of this consent form will be signed and dated by the researcher for my records.

Signature of the parent or guardian: _____ Date:____

Relationship to child: _____

Student's signature: _____Date:____

Researcher's signature: _____Date:____

□ I would like to receive a copy of the study's results by mail:

My address is: _____

□ I would like to pick up a copy of the study's results at the school.

Appendix B

Self-survey

Survey # _____

Please read the following statements and circle the number in the row (**0** = not at all true; **1**= just a little bit like me; **2**= pretty true about me; **3** = very true about me) that best describes **YOU** most of the time.

	Not at all true	**Just a little**	**Pretty true**	**Very true**
1. I am a talkative person.	0	1	2	3
2. I tend to fidget or be squirmy.	0	1	2	3
3. I am quiet and shy.	0	1	2	3
4. I want to, but I have a hard time waiting my turn.	0	1	2	3
5. I often blurt out answers, when I know them.	0	1	2	3
6. I get up out of my seat in class.	0	1	2	3
7. I am always on the "go".	0	1	2	3
8. I feel restless and enjoy physical activities.	0	1	2	3
9. I get in trouble because I DO before I THINK.	0	1	2	3
10. I interrupt others, when I need to say something.	0	1	2	3

Appendix C

IRB Approval Letter

San José State
UNIVERSITY

Office of the Provost
Associate Vice President
Graduate Studies & Research

One Washington Square
San José, CA 95192-0025
Voice: 408-924-2427
Fax: 408-924-2477

E-mail: gradstudies@sjsu.edu
http://www.sjsu.edu

To: Janet Pittman
7029 Via Serena
San Jose, CA 95139

From: Pamela Stacks, Ph.D.
Associate Vice President
Graduate Studies and Research

Date: January 22, 2007

The Human Subjects-Institutional Review Board has approved your request to use human subjects in the study entitled:

"Impulsivity and the Relationships between General Discipline Referrals, Sexual Harassment Referrals and Suspensions"

This approval is contingent upon the subjects participating in your research project being appropriately protected from risk. This includes the protection of the anonymity of the subjects' identity when they participate in your research project, and with regard to all data that may be collected from the subjects. The approval includes continued monitoring of your research by the Board to assure that the subjects are being adequately and properly protected from such risks. If at any time a subject becomes injured or complains of injury, you must notify Dr. Pamela Stacks, Ph.D. immediately. Injury includes but is not limited to bodily harm, psychological trauma, and release of potentially damaging personal information. This approval for the human subject's portion of your project is in effect for one year, and data collection beyond January 22, 2008 requires an extension request.

Please also be advised that all subjects need to be fully informed and aware that their participation in your research project is voluntary, and that he or she may withdraw from the project at any time. Further, a subject's participation, refusal to participate, or withdrawal will not affect any services that the subject is receiving or will receive at the institution in which the research is being conducted.

If you have any questions, please contact me at (408) 924-2480.

cc. Ron Rogers, 0074